



Project Report  
**Barrio Logan Alternatives –  
Economic Impacts and Development  
Feasibility**

Prepared for  
**Barrio Logan Community Plan  
City of San Diego, California**

Submitted by  
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## I. Introduction

This report summarizes the economic analysis that Economics Research Associates (ERA) has completed to date for the Barrio Logan Community Plan. In December 2008, ERA completed a market study for the Barrio Logan Community Plan area. Since that time, ERA has completed three additional tasks:

Worked with MIG to develop a series of three development scenario alternatives.

Evaluated the likely direct economic impact of each development scenario.

Analyzed potential residual land values for several individual hypothetical projects, including both market rate and affordable housing scenarios.

## II. Summary of Market Analysis

ERA conducted a long term market analysis for the Barrio Logan area that was completed in December 2008. The results of ERA's market projections by land use area shown below in **Table 1**:

**Table 1: Estimated Demand in Barrio Logan for Market-Rate Development**

	2011-2020		2021-2030		Total 2011-2030	
	Low	High	Low	High	Low	High
<b>Office Demand</b>						
Gross SF	75,000	125,000	196,000	280,000	271,000	405,000
Estimated Acreage	2	4	4	5	6	9
<b>Housing Demand (Market Rate)</b>						
Number of Units	510	630	900	1,100	1,410	1,730
Estimated Acreage	12	14	19	23	30	37
<b>Retail &amp; Restaurant Demand</b>						
Gross SF	44,550	56,650	81,800	102,000	126,350	158,650
Estimated Acreage	3	3	4	5	6	8
<b>Total Acreage for New Demand</b>	<b>16</b>	<b>21</b>	<b>26</b>	<b>33</b>	<b>43</b>	<b>54</b>

Source: Estimated by Economics Research Associates

The following points are important to consider regarding the market analysis study:

This is a preliminary analysis for purposes of planning only. It does not necessarily reflect specific site or development constraints.

The numbers shown above should be taken as reasonable guidelines for maximum development supportable over the long term to be used when considering various land use scenarios. The projections are not indicative of any policy preferences and are not intended to reflect a development scenario for Barrio Logan, just to provide a frame of reference for the outside "envelope" of development.

The number of housing units shown only includes demand for market rate units and does not include development of affordable housing units. Therefore, the number of supportable housing units could be higher than shown.

### III. Development of Alternatives

ERA worked with MIG to create potential development scenarios that would be realistic given market and other land use factors. Key factors considered included supportable market area, existing use, adjacent land uses, expected building densities, parking requirements, site opportunities and constraints, access, and other relevant factors. Based upon this analysis, we estimated square footages by land use for each block and then created three alternatives for purposes of analysis. The three alternatives vary only based on proposed development for the area between Harbor Drive and Main Street from the parcel south of Evans Street to the parcel north of 28<sup>th</sup> Street (the “transition zone”), as described below:

Alternative 1 assumes that structured parking is built on these four blocks within the transition zone.

Alternative 2 assumes that these blocks are developed as light industrial / flex space.

Alternative 3 assumes that these blocks are Business Park uses. It is important to note that the total amount of office and business park space shown in Alternative 3 is not likely to be developed within the time frame for analysis (through 2030) as it is almost double the amount of supportable square footage shown by the market study.

Total area and units by land use for each alternative is shown below in **Table 2**.

**Table 2: Total Area by Land Use for Three Alternatives for Barrio Logan**

	Alternative 1	Alternative 2	Alternative 3
<b>Land Use (in Square Feet)</b>			
Retail Space	201,000	201,000	201,000
Office / Business Park Space	533,000	533,000	965,900
Light Industrial / Flex	-	259,700	-
Institutional	40,000	40,000	40,000
<b>Housing Units</b>	1,954	1,954	1,954

Source: ERA AECOM.

## IV. Economic Impacts

ERA conducted a preliminary economic impact analysis for each development alternatives to project likely jobs, wages, and output using the following methodology:

**Jobs** - Using the square footages by land use for each of the three alternative scenarios, ERA applied jobs per square foot numbers from SANDAG's San Diego Traffic Generators report. These numbers are specific to each land use and to the San Diego region. It should be noted that some of these jobs will not be net new to the region, but can be considered net new to the community.

**Wages** - ERA obtained 2008 wage data from the Bureau of Labor Statistics for San Diego County. Based upon ERA's projections for broad categories of jobs likely to occur as part of the development scenario, we estimated average wages for each land use, which were applied to the on-site positions to yield wage estimates for each alternative. These numbers represent direct wages for positions within Barrio Logan only and do not include any indirect or induced impacts.

**Output** - Using calculated ratios from RIMS II multipliers from the Bureau of Economic Analysis, ERA calculated the percentage of each industry's output that is attributable to employee earnings. These percentages were applied to the wage data to determine the expected direct output from businesses that would occupy the newly developed space within Barrio Logan.

The summarized results are presented in **Table 3** below. As noted earlier, it is important to note that the benefits for Alternative 3 are likely to take longer than the time period of analysis (through 2030) to accrue, given that the office and business park development is approximately double of the amount found supportable in the market study.

**Table 3: Summary Table of Land Uses, Jobs, Wages, and Outputs for Alternatives 1, 2 and 3**

	Alternative 1	Alternative 2	Alternative 3
<b>Land Use</b>			
Retail Space (SF)	201,000	201,000	201,000
Office / Business Park Space	533,000	533,000	965,900
Light Industrial / Flex (SF)	-	259,700	-
Institutional (SF)	40,000	40,000	40,000
Housing (units)	1,954	1,954	1,954
<b>Total On-Site Employees</b>	2,574	3,066	3,943
<b>Total Direct Wages</b>	\$ 147,970,000	\$ 167,404,200	\$ 238,758,400
<b>Total Direct Output</b>	\$ 324,398,000	\$ 367,697,000	\$ 520,662,000

Source: ERA AECOM.

## V. Residual Land Value Analysis

ERA prepared a “residual land value” analysis of six hypothetical development prototypes in Barrio Logan. Prototype 1 includes several affordable housing scenarios, which is shown separately in Section VI. The market rate prototypes analyzed in this section are as follows:

Prototype 2 – 21 units of market rate apartments with podium parking

Prototype 3 – 12 live/work loft apartments with retail space and surface parking

Prototype 4 – 12 townhouse units using vertical tandem parking

Prototype 5 – A three-story office building with surface parking

Prototype 6 – A one-story industrial/flex building with surface parking

Residual land value is what a developer would be willing to pay for land for any development after all development cost and the required profit are covered. The analysis shows that with current market rents, the residual land value of all these alternatives are well below recent land transaction prices. In other words, none of the prototypes are feasible. As rent increases with economic recovery and public investment in Barrio Logan, the live/work lofts with retail and the office building become feasible (see **Table 4** below).

**Table 4: Summary of Residual Value and Development Feasibility for Market-Based Prototypes**

	Prototype 2 Market Apts	Prototype 3 Live/Work Loft	Prototype 4 Townhouses	Prototype 5 3 Story Office	Prototype 6 Industrial/Flex
<b>Rental Apartment Units</b>	<b>21</b>	<b>12</b>	<b>12</b>	<b>0</b>	<b>0</b>
<b>Average Unit Size (SF)</b>	<b>884</b>	<b>563</b>	<b>2,000</b>		
<b>Gross Building Area in SF</b>	<b>21,593</b>	<b>14,489</b>	<b>24,000</b>	<b>17,935</b>	<b>12,000</b>
Net Building Area in SF	18,570	12,750	24,000	16,500	12,000
Retail & Restaurant	0	6,000	0	0	0
Office	0	0	0	16,500	0
Industrial/Flex	0	0	0	0	12,000
Residential Apartments	18,570	6,750	24,000	0	0
<b>Total Parking Spaces</b>	<b>38</b>	<b>16</b>	<b>24</b>	<b>48</b>	<b>35</b>
Above Ground Podium	38	0	0	0	0
Vertical Lift Tandem	0	0	24	0	0
Surface Lots	0	16	0	48	35
<b>Total Land Area</b>	<b>21,000</b>	<b>14,000</b>	<b>10,800</b>	<b>24,000</b>	<b>24,000</b>
<b>Estimated Residual Value per SF Land</b>					
Alt A: Current Market Rent	(\$50.00)	\$12.93	(\$90.13)	\$15.31	\$9.08
Alt B: 20% Over Current Market Rent	(\$31.45)	\$38.56	(\$49.56)	\$43.12	\$25.71
Alt C: 40% Over Current Market Rent	(\$12.90)	\$64.20	(\$8.99)	\$70.92	\$42.33

Source: ERA AECOM.

There are a number of ways in which the development feasibility of these prototype projects can be improved:

Continued City and Redevelopment Agency investment in public infrastructure and amenities.

Reduced parking requirements for private development through accommodating the additional parking demand in public parking facilities.

Assembly of larger parcels to provide better efficiency of development and to provide a larger return to attract more developers.

Fine tuning the development projects to maximize the development economics of any site or project (e.g. larger units better serve the social needs of this community but construction cost varies directly with square footage and rent per square foot goes down with size).

The Agency could assemble land and then take a “write down” to make projects more feasible for developers.

There may be some opportunity to utilize creative approaches to design for small lot development.

## VI. Affordable Housing Pro Forma Analysis

ERA modeled five scenarios of affordable housing projects to illustrate the impact of granting density bonuses as an incentive to developers to increase the affordability of the projects. This is not a true residual land value analysis because we have incorporated the cost of the land into the development costs. Instead, these proformas measure the gap in financing generated by each of the projects. This is the amount of funding which will be required at the local level to make the project work. This amount is reported as ‘surplus/gap’ under each of the different scenarios. All five scenarios assume a lot size of 14,000 square feet. The main characteristics of each of the scenarios are shown as follows in **Table 5**:

**Table 5: Definition of Affordable Housing Scenarios**

Scenario	Units	Density Bonus	Density (du / acre)	Product Type	Affordability (% AMI)
A	17	25%	55	For sale	120%
B	21	50%	65	Rental	60%
C	25	75%	75	Rental	60%
D	21	50%	65	Rental	30%
E	25	75%	75	Rental	30%

Source: ERA AECOM.

**Table 6: Summary of Affordable Housing Scenarios**

Scenario	A	B	C	D	E
Site Area (SF)	14,000	14,000	14,000	14,000	14,000
Description	25% Density Bonus	50% Density Bonus	75% Density Bonus	50% Density Bonus	75% Density Bonus
Affordability/Type	120% AMI For Sale	60% AMI Rental	60% AMI Rental	30% AMI Rental	30% AMI Rental
Total Units	17	21	25	21	25
<b>Sources of Funding</b>					
Unit Sales/Permanent Loan	\$5,516,281	\$1,860,212	\$2,216,749	\$415,025	\$495,143
Low Income Tax Credits (9%)	\$0	\$3,708,042	\$4,144,988	\$3,708,042	\$4,144,988
Affordable Housing Program	\$0	\$136,500	\$162,500	\$136,500	\$162,500
Deferred Developer Fee	\$0	\$346,757	\$454,353	\$346,757	\$454,353
Total Sources	\$5,516,281	\$6,051,510	\$6,978,590	\$4,606,324	\$5,256,984
<b>Uses of Funding</b>					
Development costs <sup>1</sup>	\$6,711,321	\$6,828,492	\$8,717,736	\$6,828,492	\$8,717,736
per Net Sq. Ft.	\$559	\$431	\$462	\$431	\$462
<b>Gap/Surplus</b>					
Per Unit	(\$1,195,039)	(\$776,982)	(\$1,739,146)	(\$2,222,169)	(\$3,460,752)
Per SF Site Area	(\$70,296)	(\$36,999)	(\$69,566)	(\$105,818)	(\$138,430)
	(\$5)	(\$3)	(\$5)	(\$8)	(\$10)
<b>Per Unit Costs</b>					
Direct Costs	\$231,999	\$201,999	\$225,939	\$201,999	\$225,939
Indirect Costs	\$93,882	\$67,821	\$71,522	\$67,821	\$71,522
Financing Costs	\$27,726	\$22,013	\$23,248	\$22,013	\$23,248
Development Costs w/o land	\$353,607	\$291,833	\$320,709	\$291,833	\$320,709
Development Costs w/ land	\$394,784	\$325,166	\$348,709	\$325,166	\$348,709
<b>% of Total Costs</b>					
Direct Costs	66%	69%	70%	69%	70%
Indirect Costs	27%	23%	22%	23%	22%
Financing Costs	8%	8%	7%	8%	7%

<sup>1</sup> Includes land costs at \$50/sq.ft. Does not account for prevailing wages.

Initial comments related to the development scenarios above are as follows:

Affordable housing projects typically consist of 80 to 125 units. Smaller projects are very difficult not only because they are costly on a per unit basis (cost such as syndication and attorney fees do not change regardless of the size of the project), but also because they are less competitive when applying for tax credits. Also, small project size does not allow you to make the project more affordable to the tenants since you need to maximize rental revenue.

Most affordable housing projects financed with Low Income Housing Tax Credits (LIHTC) require a commitment of local sources. The gap shown in each of the different scenarios presented can be thought of as the amount that the local agencies will have to provide to make the project feasible. Under the assumptions described above, Scenario B appears to be the most financially feasible given that it has the lowest gap. However, this project is only feasible because it is not deeply affordable. This puts the project at a disadvantage when applying for 9% tax credits.

Increasing the affordability (Scenario D) increases the funding gap but makes it more likely that the project will receive the 9% tax credit allocation. Increasing the density alone (Scenario B) does not lower the gap because we have assumed that a 75 percent density bonus will require podium parking at an additional cost of \$20,000 per unit. Scenario C could be made more financially feasible if the parking requirement were reduced so that a podium parking is not required.

Even if sufficient local monies are available to fund the gaps under Scenarios D and E, both of these scenarios are borderline feasible because they fail to generate sufficient cash flow to cover the

asset and partnership management fees and to repay the deferred developer fee. All of these fees are generally conditional upon the project generating sufficient cash flow after any mortgage is paid and reserves are funded. However, investors and the developer itself may not be willing to fund a project that does not meet these payments.

Key conclusions are as follows:

Increasing density alone does not make the project more feasible, specially if parking requirements are not relaxed and podium parking is required

Projects that are deeply affordable (30% AMI) fail to generate sufficient rent revenue.

Projects that barely meet CTCACs threshold for affordability (60% AMI) tend to be not competitive for 9 percent tax credits.

Affordable housing projects typically range in size between 80 and 125 units. Smaller projects are difficult to finance because they do not generate sufficient revenues to cover operating expenses and to also support permanent debt.

Given these observations, a successful affordable housing would be larger in size, have moderate affordability (i.e. some households at low incomes 35% AMI and below and some in the 40-60% AMI range), and reduce parking requirements.